



Heat stress standard for hot work environments in Japan

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Abstract:

Threshold limit values (TLVs) are intended to protect workers from the severest effects of thermal stress and to establish the exposures to heat in working conditions. Earlier, acute heat strokes often occurred as a result of working in hot environments in Japan. However, acute heat strokes recently sometimes occurred in outdoor work environments such as industrial constructions and agriculture. Seasonal variations in weather are significant and the climatic conditions vary. The criteria are mainly set for working in mines, factories, and so on. WBGT is a useful evaluation index for hot environments; however, it is not commonly used for work practices. WBGT could be calculated and should be commonly used as a standard during summer. Japan mainly has a very hot and humid climate during summer. With regard to the thermal standard for offices, humidity also creates a problem in the indoor thermal conditions. Therefore, it is better to decide the TLVs of the thermal conditions according to seasons and activity levels. Inadequate thermal stress may cause discomfort and adversely affect the performance, safety, and harm to health. Further, thermal factors in the work environment must be measured and evaluated under light workload conditions like deskwork for safety and work efficiency.

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Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Meteorological Factors, Temperature

Temperature: Extreme Heat

Geographic Feature:

resource focuses on specific type of geography

Urban

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Asia

Climate Change and Human Health Literature Portal

Asian Region/Country: Other Asian Country

Other Asian Country: Japan

Health Impact: ☒

specification of health effect or disease related to climate change exposure

Injury, Other Health Impact

Other Health Impact: heat stress

Population of Concern: A focus of content

Population of Concern: ☒

populations at particular risk or vulnerability to climate change impacts

Workers

Resource Type: ☒

format or standard characteristic of resource

Review

Timescale: ☒

time period studied

Time Scale Unspecified